

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A fine channel device, comprising:

at least one fine channel substrate including,

at least one fine channel ~~for performing~~ configured to perform a chemical treatment of a fluid or ~~for producing to produce~~ fine particles from the fluid,

~~at least one fluid first and second inlet port~~ ports configured to supply at least one fluid to the at least one fine channel, and

at least one fluid outlet port communicating with the first and second inlet ports and configured to discharge ~~for discharging~~ the at least one fluid applied with the chemical treatment or the at least one fluid containing the fine particles;

~~at least one a first~~ fluid supply device including,

at least one first opening ~~for introducing~~ configured to introduce the at least one fluid into a first storage space for storing the at least one fluid, and

at least one supply channel formed in a radial direction, the at least one supply channel communicating with the ~~at least one first~~ inlet port to supply the at least one fluid from the first storage space to the ~~at least one fluid first~~ inlet port of the at least one fine channel substrate; and

a second opening communicating with the at least one fluid outlet port of the at least one fine channel substrate to discharge the at least one fluid from the at least one fine channel, ~~the at least one fluid supply device is arranged above the at least one fine channel substrate; and~~

a second fluid supply device including,

at least one first opening for introducing a second fluid into a second storage space, and

at least one supply channel formed in a radial direction and communicating the second inlet port to the second storage space.

Claim 2 (Currently Amended): The fine channel device according to Claim 1, wherein at least one introduced fluid can be introduced from the first storage space of the first fluid supply device independently into the first fluid inlet port of the fine channel substrate having the fine channel ~~independently~~, and the ~~at least one~~ first and second fluid supply ~~device sandwiches~~ devices sandwich the at least one fine channel substrate.

Claim 3 (Currently Amended): The fine channel device according to Claim 2, wherein the supply channels of at least two the first and second fluid supply devices are disposed so as not to overlap with ~~supply channels of other fluid supply devices, and the at least one fluid supply device sandwiches the at least one fine channel substrate~~ each other.

Claim 4 (Currently Amended): The fine channel device according to any one of Claims 1 to 3, further comprising:

piling-up at least two fine channel substrates each having a fine channel for performing a chemical treatment or producing fine particles from a fluid, wherein the first fluid inlet ports for each fine channel substrate communicate with the at least one supply channel of the first fluid supply device.

Claim 5 (Currently Amended): The fine channel device according to any one of Claims 1 to 3, wherein the shape of the first storage space is a circular recess.

Claim 6 (Currently Amended): The fine channel device according to any one of Claims 1 to 3, wherein the shape of the first storage space is a polygonal recess.

Claim 7 (Currently Amended): A desksize chemical plant, comprising:
a plurality of fine channel devices each fine channel device[[,]] including at least one fine channel substrate including,

at least one fine channel ~~for performing~~ configured to perform a chemical treatment of a fluid or ~~for producing to produce~~ fine particles from the fluid,

~~at least one fluid~~ first and second inlet port ~~ports configured~~ to supply at least one fluid to the at least one fine channel, and

at least one fluid outlet port communicating with the first and second inlet ports and configured to discharge ~~for discharging~~ the at least one fluid applied with the chemical treatment or the at least one fluid containing the fine particles;
~~at least one a first~~ fluid supply device including,

at least one first opening ~~for introducing~~ configured to introduce the at least one fluid into a first storage space for storing the at least one fluid, and

at least one supply channel formed in a radial direction, the at least one supply channel communicating with the ~~at least one fluid~~ first inlet port to supply the at least one fluid from the first storage space to the ~~at least one fluid~~ first inlet port of the at least one fine channel substrate, and

a second opening communicating with the at least one fluid outlet port of the at least one fine channel substrate to discharge the at least one fluid from the at least one fine channel, ~~the at least one fluid supply device is arranged above the at least one fine channel substrate;~~

a second fluid supply device including,

at least one first opening for introducing a second fluid into a second storage space, and

at least one supply channel formed in a radial direction and communicating the second inlet port to the second storage space;

a supply mechanism configured to supply at least one fluid to the plurality of fine channel devices; and

a recovery mechanism configured to recover products produced by the chemical treatment for the fluid or fine particles formed from the fluid.

Claim 8 (Previously Presented): The desksize chemical plant according to Claim 7, wherein the supply mechanism is of a pressure-driven type, and the desksize chemical plant further comprises a degassing mechanism configured to degas liquid to be supplied to the fine channel device.

Claim 9 (Previously Presented): The desksize chemical plant according to Claim 7 or 8, further comprising:

a distributor configured to supply the fluid to the fine channel device; and

a collector configured to recover the fine particles formed in the fine channel device.

Claim 10 (Previously Presented): The desksize chemical plant according to any one of Claims 7 to 8, further comprising:

an adjusting mechanism configured to adjust the fluid pressure produced in the fine channel device.

Claim 11 (Previously Presented): The desksize chemical plant according to any one of Claims 7 to 8, further comprising:

a flow mechanism configured to circulate fluid in the regular or the reverse direction to clean the fine channel device.

Claim 12 (Previously Presented): The desksize chemical plant according to any one of Claims 7 to 8, further comprising:

a drying mechanism configured to supply a gas for drying the fine channels.

Claim 13 (Previously Presented): The desksize chemical plant according to any one of Claims 7 to 8, further comprising:

an automatic supply mechanism configured to supply raw materials for performing a chemical treatment or for producing fine particles to tanks for storing them; and

an automatic feed mechanism configured to feed products produced by the chemical treatment or fine particles produced from tanks for recovering them.

Claim 14 (Previously Presented): The desksize chemical plant according to any one of Claims 7 to 8, further comprising:

a first tank configured to temporarily store the raw material discharged from the fine channels other than the products in order to reuse at least one of the raw materials for performing the chemical treatment or for producing the fine particles; and

a raw material recovery mechanism configured to recover the raw materials to be reused from the first tank to a second tank for storing the raw material.

Claim 15 (Previously Presented): The desksize chemical plant according to any one of Claims 7 to 8, further comprising:

a separating mechanism configured to separate only the raw material to be reused from the raw material containing other raw materials and/or products of the chemical treatment or the fine particles produced.

Claim 16 (Previously Presented): The desksize chemical plant according to any one of Claims 7 to 8, further comprising:

a storage tank configured to store fluid to be supplied to the fine channel device;

a recovery tank configured to recover products produced by performing the chemical treatment or fine particles produced; and

a control mechanism configured to control the temperature of the storage and recovery tanks and the fine channel device.

Claim 17 (Previously Presented): The desksize chemical plant according to any one of Claims 7 to 8, further comprising:

a plurality of valves configured to adjust the quantity of the fluid supplied when the fluid is supplied to the fine channel device to be a predetermined supply rate.

Claim 18 (Previously Presented): The desksize chemical plant according to any one of Claims 7 to 8, further comprising:

an automatic control mechanism configured to be used in at least one of supplying fluid to the fine channel device, recovering products produced by the chemical treatment or fine particles produced in the fine channel device, washing the fine channel device and drying the fine channel device.

Claim 19 (Currently Amended): A desksize chemical plant fine particle producing apparatus comprising:

a plurality of fine channel devices each fine channel device[[,]] including at least one fine channel substrate including,

at least one fine channel ~~for performing~~configured to perform a chemical treatment of a fluid or ~~for producing to produce~~ fine particles from the fluid,

~~at least one fluid~~first and second inlet port~~ports configured~~ to supply at least one fluid to the at least one fine channel, and

at least one fluid outlet port communicating with the first and second inlet ports and configured to discharge ~~for discharging the~~ at least one fluid applied with the chemical treatment or the at least one fluid containing the fine particles;

~~at least one a first~~ fluid supply device including,

at least one first opening ~~for introducing~~configured to introduce the at least one fluid into a first storage space for storing the at least one fluid, and

at least one supply channel formed in a radial direction, the at least one supply channel communicating with the ~~at least one fluid~~first inlet port to supply the at least one fluid from the first storage space to the ~~at least one fluid~~first inlet port of the at least one fine channel substrate; and

a second opening communicating with the at least one fluid outlet port of the at least one fine channel substrate to discharge the at least one fluid from the at least one fine channel, ~~the at least one fluid supply device is arranged above the at least one fine channel substrate;~~

a second fluid supply device including,

at least one first opening for introducing a second fluid into a second storage space, and
at least one supply channel formed in a radial direction and communicating the second inlet port to the second storage space;
a supply mechanism configured to supply at least one fluid for producing the fine particles to the plurality of fine channel devices; and
and
a fine particle recovering mechanism configured to recover the fine particles produced in the fine channel device.

Claim 20 (Original): The fine particle producing apparatus according to Claim 19, wherein the fluids for producing fine particles comprises a liquid containing a raw material for producing gel, and a liquid containing a dispersing agent for producing gel.

Claim 21 (Previously Presented): The fine particle producing apparatus according to Claim 19 or 20, wherein the at least one fine channel has a Y-shape so that a dispersion phase and a continuous phase introduced from respective inlet ports of the fine channel substrate are confluent in the fine channel to produce fine particles.

Claim 22 (Original): The fine particle producing apparatus according to Claim 21, wherein the angle at which the channel for introducing the dispersion phase crosses the channel for introducing the continuous phase is adjusted to control the size of fine particles produced.